

# Enabling Conditions for Successful Community Forest Enterprises

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**Abstract** In search of sustainable forest landscapes that reduce poverty and mitigate climate change, many countries have adopted a forest policy model that encourages community forest enterprise (CFE). This paper draws on international experience from the Forest Connect alliance, involving teams supporting small forest enterprises in 12 countries with more than 800 associate members from 60 countries. The hypothesis emerging from this alliance is that three main enabling conditions are required for successful CFEs: accessible commercial forest rights; processes of enterprise-oriented social organisation; and infusion of competitive business skills. Having established criteria and indicators of successful CFE, this paper critically examines a series of eight national and sub-national case studies (for Brazil, China, Ethiopia, Ghana, Guatemala, Laos, Mozambique and Nepal) to test this central hypothesis. Findings demonstrate a clear association between the implementation of these three enabling conditions and indicators of successful CFE. Examples from Dolakha and Sindhupalchowk (Nepal) and Monapo (Mozambique) illustrate the importance of ensuring these conditions. The paper concludes by drawing a number of policy implications about how to foster the enabling conditions necessary for successful CFE.

**Keywords** Commercial tenure · Social organisation · Business capacity · Enterprise isolation

## Introduction

Between 1985 and 2000, the forest area owned and administered by communities in developing countries more than doubled to over 380 M ha, representing

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approximately 22% of the total forest area in those countries (White and Martin 2002). Further area increases up to 2008 (as observed by Sunderlin et al. 2008) have been attributed to growing appreciation of how community rights enhance development and poverty reduction, and awareness of state stewardship failures (White et al. 2007). Since then, however, there has been a stagnation or even backlash against forest communities asserting their rights (RRI 2011). What rights are assigned to communities in national contexts is a subject of considerable complexity. For example, despite some form of recognized community tenure rights in all of the 45 forest countries studied in a recent survey (comprising 90% of the world's forest area), only 15 countries afforded communities commercial timber rights (Almeida and Hatcher 2011).

Where hand-over of forests to communities has occurred, there has been an upsurge in the number of formally registered Community Forest Enterprises (CFEs) in various countries, including Bolivia, China, Guatemala, Honduras, India, Mexico and Nepal. In a recent global overview of CFEs, these were found generally to be positive forces for forest conservation (Molnar et al. 2007). They were also found to deliver substantial household-level financial benefits (Kelleher 2011). An argument derived from these two facts is that if communities derive commercial income from forests, they are likely to keep the forest standing (Carter et al. 2007). Recent evidence confirms that community forest management is better at avoiding deforestation than state protected areas (Porter-Bolland et al. in press). Some CFEs have even adopted forest certification for sustainable forest management, despite the huge cost of doing so at small scale (Macqueen et al. 2008). Diagnostic studies in 12 countries show that the small enterprises of forest-dependent people account for a large proportion of the pro-poor commercial forest activity in most developing countries—usually in excess of 50% of employees and 90% of enterprise numbers within the forest sector (Macqueen 2009).

The objective of this research paper is to identify and use criteria and indicators for successful CFEs to test three hypothetical enabling conditions for successful CFEs. The paper starts with a description of an alliance to support CFEs, Forest Connect, within which the hypothesis regarding three enabling conditions emerged. It then describes the research method, results and discussion from testing those enabling conditions in eight Forest Connect partner countries. It concludes by drawing policy implications about how to foster enabling conditions for successful CFEs.

## The Hypothesis Emerging from the Forest Connect Alliance

An international conference in Costa Rica tackled issues affecting CFEs (the main conclusions of which were summarised in Donovan et al. 2006). Subsequent discussions among participants (captured by Macqueen 2007a) concluded that many CFEs are hampered by isolation. They lack links with:

- other CFEs (reducing scale efficiencies, market and political bargaining power),
- financial and business development service providers (reducing profitability and sustainability) and,

- policy-makers (weakening their claim for secure commercial forest rights).

In order to reduce this isolation, the International Institute for Environment and Development (IIED) and the Food and Agriculture Organisation of the United Nations (FAO), together with partner organizations in 12 countries, launched the Forest Connect alliance in 2007 (Macqueen 2008).

Forest Connect aims at avoiding deforestation and reducing poverty by better linking small forest enterprises to each other, to markets, to service providers and to policy processes such as National Forest Programmes (Macqueen 2009). The alliance provides funded support for CFEs in 12 countries, namely Burkina Faso, China, Ethiopia, Ghana, Guatemala, Guyana, Laos, Liberia, Malawi, Mali, Mozambique and Nepal. Also, a network of more than 800 supporters in 60 countries is serviced by an international social networking site that provides access to latest manuals and information on measures to support CFEs (IIED 2011).

Diagnostic studies of, and facilitated support to, small forest enterprises in Forest Connect partner countries have identified three main enabling conditions for successful community forests enterprise (May et al. 2003; Sun and Chen 2003; Thomas et al. 2003; Kaboré et al. 2008; Kambewa and Utila 2008; ANSAB 2009; Gebremariam et al. 2009; IIA 2009; Nhancale et al. 2009; Phimmavong and Chanthavong 2009; Osei-Tutu et al. 2010a). These enabling conditions are:

- accessible commercial forest rights
- processes of enterprise-oriented social organisation
- infusion of competitive business skills

The three conditions have also emerged independently from IIED work with three global alliances of family, community and indigenous forest right-holders (Macqueen 2011). But what do these three enabling conditions mean more specifically?

For CFEs to have accessible commercial forest rights in a way that allows them to do business, they require a package of complementary rights: forest access rights, timber and non-timber forest product utilization rights, management rights, rights to exclude others and the right to use forest land as collateral (Almeida and Hatcher 2011). These may in turn be circumscribed by their duration, the degree of clarity with which field-level authorities recognise those rights, robustness in a court of law, and bureaucratic simplicity and affordability (RRI 2009). This complex context-specificity demands clearer principles on how to approach the governance of commercial forest rights—rather than merely noting that it is necessary.

Enterprise-oriented social organization is often a secondary consideration to economic and environmental goals when dealing with CFEs (De Marsh 2011). However, at the level of the CFE it requires attention because customary community organisations are rarely designed optimally for business. There is a need to define business roles and staff those roles appropriately, register the business, manage it and keep financial records, to inspire investor confidence. Similarly, at the regional and national level it is often advantageous to link forest enterprises to each other (in business groups or federations), which can strengthen bargaining power within markets, reduce transaction costs and perceptions of risk to financial and business

service providers, and increase influence over decision-makers who determine commercial forest rights (Macqueen 2007a). Clear principles are required on how to foster such broad federations.

Competitive business skills at community level are essential to break into markets or create new ones, ensure profitability by attracting investment and manage the forest resource sustainably. There are a number of business basics that can easily be acquired from innumerable business manuals and training courses (for an excellent beginners guide see Bonitatibus and Cook 1995). Clear guidance on how to achieve community capacity in these areas at scale (i.e. beyond individual enterprise support projects) is also needed.

## Research Method

Case study countries (or sub-national regions within them) were selected using five criteria: (1) geographical and political spread across different forest types; (2) range in the extent to which indicators of successful CFE had been met; (3) availability of Forest Connect diagnostics on CFEs over the last 5 years; (4) regular Forest Connect interactions with field experts in community forestry over last 5 years; and (5) accurate data on CFEs available in the literature. Eight countries (or sub-national regions within them) matched these criteria, namely Brazil, China, Ethiopia, Ghana, Guyana, Lao, Mozambique and Nepal.

The Forest Connect alliance has defined successful CFEs as entities undertaking commercial exchanges based on sustainably managed forest or tree products or services, overseen by credible representative bodies suited to act as rights holders and which have legitimacy within self-defining ‘communities’ in terms of people and area, that generate and redistribute profits within those communities (adapted from Macqueen et al. 2008). Four criteria of success have been derived from this definition, each with two indicators that could form the basis of verification:

- Criterion 1 Degree to which commercial CFEs exist within the forest sector
  - Indicator 1.1 Number of commercial CFEs as compared to overall number of forest enterprises.
  - Indicator 1.2 Annual value of CFE sales as compared to non-CFE sales.
- Criterion 2 Degree to which CFEs add value and distribute and accrue profit locally
  - Indicator 2.1 Number of communities or households involved in CFE value chains.
  - Indicator 2.2 Absolute and relative share of annual profit accrued locally.
- Criterion 3 Degree to which these enterprises are operating sustainably
  - Indicator 3.1 Extent of CFE certification for sustainable forest management.
  - Indicator 3.2 Expansion or contraction in forest cover and the quality of that cover.

- Criterion 4 Degree to which socially organised CFEs are driving market or policy changes
- Indicator 4.1 Occurrence of new institutional arrangements in the value chain.
- Indicator 4.2 New forest policies, laws or regulations influenced by CFEs.

Assessments of both the enabling conditions and the criteria and indicators for successful CFEs have involved: (1) 16 field missions over a period of 4 years (November 2007–November 2011) with concomitant observations and discussions with the CFE managers, Government forest authorities and NGO support institutions involved in the Forest Connect alliance in the regions indicated in Tables 1 and 2; (2) a literature review of the status of, and factors affecting, CFEs, including reports and presentations from Forest Connect partners at two international learning events and in regular project reporting.

The evaluation of success of CFE is made difficult by the great variety of contexts and the specificity of the forest sector to each location. This is compounded by the diverse timeframes over which changes in the enabling environment have occurred. It is further complicated by the variety of CFE types and products and services, the paucity of reliable data on the scale of ‘community’ versus broader ‘small and medium forest enterprise’ forest management and regional differences in social organization. Nevertheless, the author has attempted to be systematic in assessing available data to achieve a credible assessment informed by wide exposure to these issues through the Forest Connect alliance over 4 years.

## Results

In Tables 1, 2, 3 a subjective ranking of the enabling conditions and indicators is presented using scores from best to worst of: \*\*\*\*, \*\*\*, \*\* and \*. These scores merely serve as visual shorthand for hugely complex real life situations. Table 1 summarizes the degree to which the three enabling conditions indicated for successful CFE are in place in each of the eight case study countries. Marked variation is found in the summary descriptions and scoring of enabling conditions, with Nepal closely followed by Guatemala having the most positive descriptions and highest scores, and Ghana and Mozambique having the least positive descriptions and lowest scores for all three enabling conditions.

Table 2 provides an assessment from available data of indicators of successful CFE in eight case study countries. Both Guatemala and Nepal have the most positive descriptions and highest scores for the indicators of successful CFEs, while Mozambique has the least positive descriptions and scores, closely followed by Ghana.

Correlations between the aggregate scoring from those Tables 1 and 2 are presented in Table 3. There is a direct association between aggregate scores for enabling conditions and indicators of successful CFEs across the eight case study countries. The only minor exception is that Ghana appears to have a slightly more

**Table 1** Forest data and assessment of hypothetical enabling conditions for CFEs in eight case study countries

Country	Forest cover (% change between 2000 and 2010)— FAO, 2011	Accessible commercial forest rights for CFEs	Enterprise-oriented social organization of CFEs	Fusion of competitive business skills within CFEs	Subjective aggregate measure of proposed enabling conditions for success
Brazil (States of Acre, Mato Grosso and Para)	519.5 M ha (−0.5%)	*** The 2001 Brazilian National Forest Programme delimited variations on 'community' forestry. Beyond the 'legal reserve' to be kept forested in new agricultural settlements, there are also indigenous 'extractive reserves', and tenders to manage production forests on state lands—all allowing relevant communities differing degrees of commercial forest rights. Bureaucracy is still a major issue (May et al. 2003)	** Indigenous peoples have their own customary organizations and commercial activities often in extractive reserves, usually based on NTFPs, exceptionally timber. Very rarely agricultural settlement areas have effective CFE organizations such as the five Forest Stewardship Council (FSC) certified communities in Acre joined into a cooperative, Cooperfloresta, in 2005. (Gomes et al. 2008)	** Commercial logging skills are widespread among private loggers across the forest frontier, but CFEs are a more recent phenomenon. For example, in the case of Cooperfloresta, the community cooperative initially simply sold logs to Southern buyers, but diversified with support from the NGO IMAFLORA towards certified products, sub-contracting a local sawmill to produce sawn timber ****	**
China (Fujian and Zhejiang Provinces)	206.8 M ha (+1.6%)	*** Households have land use rights on five tenure types: private plots, village household contracts, village household partnerships, market allocated plots and collective forestland as part of a 'three-fix policy'. Changes in tenure policy have provided massive opportunities for household forest management (Hyde et al. 2008)	** While independent association had formerly been seen as a political risk, and associations scarcely existed in the 1980s and 1990s— supporting their development is now seen as key to the Government's agriculture and rural development strategy (Weyerhaeuser et al. 2006)	*** The Government invests heavily in business skill development, but only introduced a specific <i>Small and medium Enterprise Promotion Law</i> in 2003. By 2008 the Government had invested US\$ 500 M in small and medium enterprise development finance. Many new provincial forest associations train SMEs (Luo et al. 2009)	***

Table 1 continued

Country	Forest cover (% change between 2000 and 2010)— FAO, 2011	Accessible commercial forest rights for CFEs	Enterprise-oriented social organization of CFEs	Fusion of competitive business skills within CFEs	Subjective aggregate measure of proposed enabling conditions for success
Ethiopia (Province of Oromia)	12.3 M ha (−1.1%)	** New 2008 Forest Proclamations formalized community Participatory Forest Management (PFM) rights in both state and private forests. The newly privatised state Oromia Forest and Wildlife Enterprise has formalized commercial partnerships with 6 CFEs with 34 more due to be formalized by end 2011 in Southern Oromia alone (De Marsh and Macqueen 2011)	** Donor programs, notably the Bale Eco- Regional Sustainable Management Programme and the Integrated Forest Management Project have helped organized communities for PFM. Forest blocks have been delineated and agreements signed with local governments. Community forest cooperatives are now beginning to manage those PFM areas (Macqueen 2010)	** Through PFM programs, local communities have been trained in basic business skills. Specific product development training in Goba funded through Farm Africa has also been undertaken in bamboo furniture, honey and essential oil production. Forest management training has been included within PFM initiatives (De Marsh and Macqueen 2011)	**
Ghana (Central- South Ghana)	4.9 M ha (−2.1%)	* Forest lands belong to communities but are managed in trust by the Forestry Commission based on the 1974 Timber and Trees Decree. While the 1994 Forestry and Wildlife law stresses Community Forest Management, the 1997 Timber Resources Management Act introduced Timber Utilisation Contracts with requirements that prevent access by most CFEs. No other laws support commercial CFEs (Opoku 2006)	* In a recent review of 15 different forest enterprise sub-sectors, a number of well-established associations were found, for example the 31,000 strong Small-scale Carpenters Association within the Timber and Woodworkers Union—but only a small number represent CFE in any meaningful way and there has been little concerted negotiation with government about policy reform (Osei-Tutu et al. 2010b)	* Much of the enterprise that is taking place in timber and NTFP value chains is informal (and sometimes illegal) and this is not conducive to the development of more organized business structures and capacities. While numerous NGOs and Government programmes supporting business skill development—such as Tropenbos International Ghana – funding is tiny for the task at hand. (Osei-Tutu et al. 2010b)	*

Table 1 continued

Country	Forest cover (% change between 2000 and 2010)— FAO, 2011	Accessible commercial forest rights for CFEs	Enterprise-oriented social organization of CFEs	Infusion of competitive business skills within CFEs	Subjective aggregate measure of proposed enabling conditions for success
Guatemala (All Departments, especially the Peten)	3.7 M ha (−1.4%)	**** In 1989 the Government established a new management authority for the forests of the Petén and set out a 17 step process for awarding forest concessions in the multiple use areas for local communities, but contingent on them attaining FSC certification. Other support programs such as the 'Programa de Incentivos Forestales' have followed	**** A donor programme of capacity building sensitised communities to their new rights, helped them organize and gave technical support for FSC certified forest management. The 22 Petén communities established an association in 1996. With parallel moves in other provinces there are now 11 regional community forest associations under one umbrella national alliance	*** Initially disjointed community harvesting operations were markedly improved in 2004 by the establishment of a jointly community owned Forest Services Community Enterprise. A host of other timber and NTFP businesses now exist across the 11 regional associations such as Ut'z Che	****
Laos (Bolikhamsay, Luangprabang and Sang Thong Provinces)	15.8 M ha (−0.5%)	*** The 2008 <i>Forest Law</i> gives communities commercial rights to trees when permission is received from the relevant government agency. Actual allocations have been widespread but highly dependent on the district forest staff confidence in CFEs (Phimavong and Chanthavong 2009). In Sang Thong District, NGOs such as SNV have helped lever commercial use rights (e.g. for bamboo production—see Greijmans et al. 2009)	** Communities in which forest product processing occurs (e.g. for bamboo), are often poorly organised and have tended to sell to middlemen who trade with buyers in the cities or overseas. But a new Small and Medium Sized Enterprise Promotion and Development Office assisted by the FAO, WWF, SNV, GTZ and CIAT is seeking to establish SME networks including for forest products (Phimavong and Chanthavong 2009)	** To date there have been few extensive efforts to develop business skills in the forest sector. Beyond specific projects, little technological assistance has encouraged businesses to upgrade from customary hand production techniques. Nevertheless some project initiatives such as EDF and new community associations are trying to move in that direction (Phimavong and Chanthavong 2009)	**



Table 1 continued

Country	Forest cover (% change between 2000 and 2010)— FAO, 2011	Accessible commercial forest rights for CFEs	Enterprise-oriented social organization of CFEs	Fusion of competitive business skills within CFEs	Subjective aggregate measure of proposed enabling conditions for success
Mozambique (All 10 Provinces)	39.0 M ha (−0.5%)	<p><sup>*</sup></p> <p>The 1997 <i>Mozambique Land Law</i> grants land rights to self-defining communities by dint of their historic occupation of the land. However, the 1999 <i>Forest and Wildlife Law</i> restricts forest harvesting to subsistence use only. Commercial timber rights are only granted through cumbersome concession or annual simple license legislation with registration in distant national or provincial capitals (Johnstone et al. 2004)</p> <p>****</p>	<p><sup>*</sup></p> <p>Failure to grant full commercial rights to communities has restricted enterprise-oriented social organisation. The larger commercial timber associations, such as the Commercial and Industrial Association of Sofala are generally dominated by larger concession or simple license holders, not by community groups (Nhancale et al. 2009).</p> <p>****</p>	<p><sup>*</sup></p> <p>Formal business skills are generally poorly developed in rural Mozambique. Despite this, some new NGO initiatives such as those of Centro Terra Viva have established links with the Government Institute for Small and Medium Enterprises to begin training in business development in the timber and bamboo furniture and honey sectors (Distia et al. 2008)</p> <p>****</p>	<sup>*</sup>
Nepal (The middle hills region)	3.6 M ha (−0.7%)	<p>Community participation in forest management had been recognised as early as 1976 in the National Forestry Plan, but only in 1993 did users gain commercial forest rights. Community Forest User Groups (CFUGs) formed, developing management plans with the Forestry Department. In 1995 the new 'Forest Rules' introduced a new State facilitation role towards commercial activities of these CFUGs (ANSAB 2009)</p> <p>****</p>	<p>From 1993, CFUGs developed at pace, especially in the degraded middle hills of Nepal. The CFUGs began to associate into representative bodies, the largest being the Federation of Community Forest Users, Nepal. Since its inception in July 1995, it has grown to involve 8 M people—representing in excess of 11,200 of 16,000 CFUGs covering 21% of the countries forest area (ANSAB 2009)</p> <p>****</p>	<p>Alongside the new facilitation role of the Forest Department, specialist enterprise support agencies also flourished (e.g. Asia Network for Sustainable Agriculture and Bioresources). Value chain work and enterprise training has occurred across multiple forest sub-sectors (ANSAB 2009)</p> <p>****</p>	****

**Table 2** Criteria and indicators of the success of CFE in eight case study countries

Country	Criteria 1. Degree to which commercial CFEs exist (Indicators—number and value of commercial CFEs vs. non-CFEs)	Criteria 2. Degree to which CFEs add value and distribute and accrue profit locally (Indicators—community involvement and share of profits)	Criteria 3. Degree to which these enterprises are operating sustainably (Indicators—certification and forest cover/quality changes)	Criteria 4. Degree to which socially organised CFEs are driving market or policy changes (Indicators—new value chain arrangements and policies)	Subjective aggregate measure of the success of CFE
Brazil (States of Acre, Mato Grosso and Para)	** Forest enterprises with less than 100 employees comprise more than 90% of enterprise numbers (May et al. 2003), but the subset of 'CFEs' is unquantified and likely to be a tiny fraction	** By 2005, more than 300 communities had developed community enterprises based on forest management plans (Amaral and Amaral Neto 2005) but data on profits are unavailable	*** By 2008 there were 11 FSC certified community forestry enterprises covering 1.5 M ha of forest (mostly one large extractive reserve) (Macqueen et al. 2008) but by 2011 there were only six FSC community certificates	* Some agricultural settlement community groups are compelled to form associations to qualify for government benefits, but most have struggled to turn collective action into market potential (Figueiredo et al. 2006)	**
China (Fujian and Zhejiang Provinces)	*** Recent growth in small and medium non-state forest enterprises means that they account for 90% of the value in wood furniture and wood building material sectors but 'community' ownership is unclear (Sun and Chen 2003)	*** By 1984, 30 M ha had been transferred to 57 M households for commercial use and this is ongoing with many households are reportedly investing their own resources in reforestation (Liu and Edmunds 2003)	*** Strong enforcement environment ensures restoration and sustainable management (Luo et al. 2009) including growth in FSC certification to 42 certificates, but only three were community owned	** Embronic cooperatives and associations rapidly strengthening market position—but often heavily government dominated and with little impact on resource rights (Weyerheuser et al. 2006)	***
Ethiopia (with Forest Connect insights from the Province of Oromia)	** Many informal forest enterprises exist, particularly in fuel wood, herbalist, wild coffee and honey sectors. Fewer formal CFEs—though these are now emerging, but almost no CFE timber production to date (Gebremariam et al. 2009)	*** By 2011, there were approaching 40 community Forest Cooperatives in development, many of which had made commercial sales and distributed profits locally (DeMarsh and Macqueen 2011)	* In well established community Forest Cooperatives such as those at Chalimo Forest—the area of conserved forest and the quality of forest is expanding, but none is FSC certified (Macqueen and Rolington 2011)	* The Forest Cooperatives have not yet developed sufficiently to shape markets or the policy environment with only one or two local Unions and no regional or national federations yet (De Marsh and Macqueen 2011)	**

Table 2 continued

Country	Criteria 1. Degree to which commercial CFEs exist (Indicators—number and value of commercial CFEs vs. non-CFEs)	Criteria 2. Degree to which CFEs add value and distribute and accrue profit locally (Indicators—community involvement and share of profits)	Criteria 3. Degree to which these enterprises are operating sustainably (Indicators—certification and forest cover/quality changes)	Criteria 4. Degree to which socially organised CFEs are driving market or policy changes (Indicators—new value chain arrangements and policies)	Subjective aggregate measure of the success of CFE
Ghana (Central-South Ghana)	** Many hundreds of thousands of people involved in enterprises across Ghana's forest communities, but few formally registered CFEs (Osei-Tutu et al. 2010a)	** In many different product sub-sectors profits are being generated, with some value added processing using basic technologies (Osei-Tutu et al. 2010b)	* Lack of clarity over resource rights means that communities rarely engage in sustainable forest management (Hansen and Treue 2009) and none have FSC certification	** CFE groups have been unable yet to clarify resource rights or develop much market power (Osei-Tutu et al. 2010b)	**
Guatemala (All Departments, especially the Peten)	**** More than 3000 formally registered forest enterprises in Guatemala (with 23.1% of the forest area controlled by communities (Stoian and Rodas 2006), many more working informally (IIA 2009)	**** Value added CFE timber products in the Peten alone brought in US\$ 411,000 to local communities in 2006 (Macqueen et al. 2008)	*** In 2008 there were 15 FSC-certified concessions covering 560,000 ha of land in the Peten alone with natural forest cover remaining at about 98% (Macqueen et al. 2008) but in 2011 FSC registers only four FSC certificates	**** The CFEs are organized into 11 regional associations with a national umbrella alliance (Lobos and Giron 2011)	****
Laos (Bolikhamsay, Luangprabang and Sang Thong Provinces)	*** Significant numbers of enterprises produce timber and NTFPs in Laos—accounting for 3% of GDP but widespread informality hampers data collection on CFE numbers (Phimmaovong and Chanthavong 2009)	** Value addition from both timber and NTFP value chains is growing especially in bamboo, rattan and mulberry paper sectors (Phimmaovong and Chanthavong 2009) with household incomes rising and reinvestment into revolving loan funds	** As of 2003, 150,000 ha of Lao forest was under community management plans (Sunderlin 2006) and while early FSC certification of a 6 village block of 39,000 ha proved controversial (WRM 2006)—village teak certification is almost approved	** Product based associations are just starting to form (e.g. the Lao Handicraft Association) and the Forest Trust has been working to group village teak producers together into representative units.	**

Table 2 continued

Country	Criteria 1. Degree to which commercial CFEs exist (Indicators—number and value of commercial CFEs vs. non-CFEs)	Criteria 2. Degree to which CFEs add value and distribute and accrue profit locally (Indicators—community involvement and share of profits)	Criteria 3. Degree to which these enterprises are operating sustainably (Indicators—certification and forest cover/quality changes)	Criteria 4. Degree to which socially organised CFEs are driving market or policy changes (Indicators—new value chain arrangements and policies)	Subjective aggregate measure of the success of CFE
Mozambique (All 10 Provinces)	* While there were more than 180 communities with delimited land by 2005, only three communities had successfully obtained a simple license to produce timber (Nhancale et al. 2009)	** The large numbers of formal and informal enterprises are important for communities but there is little value added processing (Nhancale et al. 2009)	* Forest degradation on community land is widespread. Few communities have forest management plans. FSC certification has occurred in two private concessions where communities live but have no control	* At least 70 Community Management Committees have been established with several hundred documented commercial interest groups (often not formally registered) but few commercial associations (Nhancale et al. 2009)	*
Nepal (The middle hills region)	**** 16,000 Community Forest User Groups have established a wide range of timber and NTFP enterprises (ANSAB 2009)	*** There is considerable value added processing, generating community revenues from timber, bamboo, charcoal, paper and NTFPs including spices that is reinvested in community development projects (Subedi 2011)	**** A large portion of the middle hills (22% of the countries area) has been restored to productive forestry (Pandey 2009) and there are now eight FSC chains of custody certified enterprises and one forest management certificate	**** FECOFUN represents 11,000 out of 16,000 Community Forest User Groups and is a powerful voice in policy debates	****

positive aggregate score for indicators of successful CFEs than the aggregate score for enabling conditions would suggest.

Notwithstanding the caveats about the complexity of evaluating indicators of successful community forestry, it would be dishonest to the data at the author's disposal to score these situations any differently, which underlines just how clear is the association between the hypothetical enabling conditions for CFEs and the indicators for successful CFEs across the range of countries surveyed (as summarized in Table 3).

Aggregate conclusions are borne out by more detailed examples in each of the eight case study countries. In Nepal, for example, 10 recently formed CFUGs in Dolakha and Sindhupalchowk have attained accessible commercial forest rights (enabling condition 1) through six simple local steps: (1) the sending of a letter of interest from each community to a District Forest Officer (DFO), (2) the democratic formation of the CFUG supported by the DFO, (3) the sending of an application to the DFO to register the CFUG's constitution including forest management responsibilities, (4) the issue of a certificate of registration by the DFO, (5) the development of an operational plan by the CFUG and (6) the issue of a certificate granting the community commercial rights signed by the DFO. Commercial rights are clear, with simple achievable conditions that can be mediated locally. Enterprise-oriented social organisation (enabling condition 2) has been established by linking their wood supply to 5 community owned charcoal-briquette enterprises which themselves supply Himalayan Naturals (a separately registered charcoal retail business) in Kathmandu. Himalayan Naturals has both worked with Shakya engineering to equip those five briquette enterprises with a suitable equipment design and developed a charcoal-briquette stove design with two further companies (Newa Art Ceramics and Everest Ceramics). Induction in competitive business skills (enabling condition 3) has come from a dedicated service provider (ANSAB) which has provided both design and technical assistance to both CFEs and to stove and tripod manufacturers. Within 3 years some indicators for successful CFEs have been fulfilled. Formal commercial enterprises exist (indicator 1.1) with 10 CFUGs and five associated community enterprises having produced 500,000 briquettes over 3 years, all sold in Kathmandu through 51 retail outlets of Himalayan Naturals with

**Table 3** Summary of aggregate measures for eight ranked case study countries of: enabling conditions against criteria and indicators for successful CFE

Country	Hypothetical enabling conditions for CFEs	Scoring of criteria and indicators for successful CFEs
Guatemala	****	****
Nepal	****	****
China	***	***
Brazil	**	**
Ethiopia	**	**
Laos	**	**
Ghana	*	*
Mozambique	*	*

attractive packaging and accessories (stoves and tripods) for convenient burning at remunerative prices. Demand continues to outstrip supply. Incomes are distributed locally (indicator 2.1) with direct employment to 52 men and 42 women with a combined income of US \$ 24,934/year (data from ANSAB presentation documented in Macqueen and Rolington 2011). The forests are managed sustainably according to CFUG management plans (indicator 3.1), although not certified by FSC. Representation through the CFUG association (FECOFUN) has given this commercial operation considerable influence in helping shape future policies on sustainable charcoal production (indicator 4.1).

At the other extreme, in Mozambique (and to a lesser extent Ghana) CFEs have not generally flourished. In Mozambique, the progressive treatment of community tenure in the 1997 *Land Law* was neutered by the failure of the 1999 *Forest and Wildlife Law* to grant accessible commercial forest rights (enabling condition 1). Only three of the 180 forest communities that have delimited their land in the past decade have been able to access annual simple licenses to extract small volumes of timber commercially, and none had managed to obtain a longer-term concession (enabling condition 2). Infusion of competitive business skills has been patchy (enabling condition 3) with success limited to a few community interest groups, including those in Monapo. Support from FAO commencing in 1998 enabled them to form and register a commercial association and obtain an annual simple license for timber (and charcoal) harvesting. In terms of successful CFE, therefore, criteria of success are not broadly met—with few formal commercial CFEs (indicators 1.1 and 1.2), little local income distribution (indicators 2.1 and 2.2), largely unmanaged forest resources (indicators 3.1 and 3.2), and little influence of CFEs on decision-makers (indicators 4.1 and 4.2).

## Discussion

Results from the eight case studies from developing or transition countries are substantiated by known examples from North America, Europe and Australasia where accessible commercial forest rights, enterprise-oriented social organisation (often over decades if not centuries) and business skill development have led to highly profitable forest industries within sustainable forest landscapes (Ackzell 2010).

Accessible commercial forest rights may be obtained over various time scales. The time at which communities are granted rights will have an obvious bearing on any criteria and indicators of CFE success. Sweden and Norway have had more than 100 years of stable family forest rights (Ackzell 2010). Guatemala and Nepal have had a decade or more in which CFEs have had time to establish and so score highly. But it has been scarcely 3 years since Ethiopia started down the community forestry pathway, and the emergence of new Forest Cooperatives, while happening at pace, had not yet translated into widespread impacts on livelihoods, sustainable forest management and policy or market change. Conversely, where commercial rights have not clearly been handed over at all (e.g. in Mozambique) CFEs generally

languish as subsistence or informal livelihood activities, with forest resource degradation and policy stasis. These findings confirm those of Molnar et al. (2007) who also remarked on the need for harmony between customary rights and any transfer of responsibility through formal bodies of law. Stoian et al. (2009) also make the important observation that a lack of tenure rights on paper does not necessarily impede the flow of forest products from operational CFEs in weak governance contexts. Much is possible even in suboptimal contexts.

Enterprise-oriented social organization, both at the level of the firm (e.g. formal associations and cooperatives) and at regional or national level (e.g. community forest federations) may also emerge in various ways. Countries where both levels have arisen from grass roots action (e.g. Guatemala or Nepal) score highly against criteria and indicators of successful CFEs with CFEs copying each others' successful business models, searching out financial and business development support to establish sustainable forest management businesses, translating that into market share and lobbying for a better policy environment. But criteria and indicators of successful CFEs have intermediate scores where social organization is either demanded for fiscal reasons (e.g. some but not all of Brazil's settlement communities), or pushed by government (e.g. in Ethiopia). They also have low to intermediate scores when social organization is resisted for political reasons (e.g. in China and Laos), or stifled by lack of commercial rights around which it might be based (e.g. in Ghana and Mozambique). Given the level of social organization required for sustainable management, and even more so for certified sustainability through FSC, it is not surprising to find most of the examples of FSC community forest certification in Guatemala, Nepal and parts of Brazil, China and Laos, where social organization is strong.

Infusion of competitive business skills is the subject of many donor, government, civil society and private sector initiatives. For example, ongoing Forest Connect partners have made progress in business skill development in bamboo cooperative functionality in China, wild coffee product development in Ethiopia, carpentry design and sales in Guatemala, internet marketing of rattan products in Laos, coconut fibre product development in Mozambique, and charcoal briquettes and stove manufacture and marketing in Nepal (Macqueen and Rolington 2011). The development of such business skills is most widespread when there are federated community groups with secure commercial forest rights who can be engaged without prohibitive transaction costs—for example in Guatemala and Nepal where the highest scores for criteria and indicators of successful CFEs are found.

Bringing about these three enabling conditions for successful community forestry enterprise requires strong partnerships between forest communities (the rights holders), receptive governments (which critically determine the extent to which communities are rights holders), civil society groups (which can advocate for rights and help facilitate social organization and business skill development) and private sector actors (especially financial investors and business development service providers). Alliances including Forest Connect are working to make sure such partnerships emerge.

## Conclusion and Policy Implications

If countries wish to develop successful CFEs that help meet market demand for food, feed, fuel and fibre products, avoid deforestation and reduce poverty they need to put in place the three main enabling conditions of accessible commercial forest rights, processes of enterprise-oriented social organisation and infusion of competitive business skills.

A template of legal provisions for accessible commercial forest rights leading to successful CFE development cannot easily be derived from case study countries because of the complex and diverse political contexts in which it might be applied. What can be derived with some authority, however, is a threefold policy implication, illustrated by the Nepalese case reported above. The clearer the transfer of commercial rights, the simpler (or better assisted) the conditions against which that transfer occurs, and the more local the authorisation process, the better. Financing for processes that pursue clarity, simple conditions and local mediation is still often difficult to find.

In terms of enterprise-oriented social organisation, no single legal form adequately addresses all possible CFE needs in all contexts. Nevertheless, while there are advantages and disadvantages to every business form (summarised in Macqueen 2007b)—be it foundation or trust, state enterprise, family business, association, cooperative, company limited by guarantee or by share—findings from this body of work offer a threefold policy implication for supporters of CFEs: (1) make sure CFEs understand and cover the basic roles for getting a product or service to market (manager, supply, production and marketing coordinators and accountant), (2) make sure adequately skilled people are in each position, and (3) create the space and logistical opportunities to maintain cohesion and trust, not only within the business, but also, crucially, between businesses in horizontal federations and within vertical market chain groupings. On this last recommendation, emerging associations and federations frequently lack funds to create the space and logistics necessary to allow organisational structures to emerge from below.

The general approach for infusing competitive business skills—involving facilitation of market development—is an entire subject in its own right (described in Macqueen et al. 2009). Findings of this study offer three policy implications: (1) supportive intermediary institutions that have a mandate for work with CFEs can play more of a role in CFE business capacity development than is currently the case; (2) the focus of such institutions is often most usefully oriented toward the facilitation of pre-existing business development or financial service providers, rather than toward the supply of all services themselves; and (3) financing participatory value chain analysis and interventions as part of CFE business skill development can add-value by developing capacity amongst CFEs and support institutions at the same time.

One final policy implication is that developers of REDD+, Forest Investment Programmes, Forest Law Enforcement, Governance and Trade Programmes, and any new donor initiatives, need to consider seriously whether their aims can be met without putting support to CFEs at the heart of those programmes.



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## References

- Ackzell L (2010) 100 years of Swedish Forest Owner Associations: challenges ahead. Presentation to the international conference 'Taking stock of smallholder and community forestry: where do we go from here?' 24–26 March 2010, Montpellier, France
- Almeida F, Hatcher J (2011) What rights? Measuring the depth of indigenous peoples and community forest tenure: preliminary findings from a legal analysis of 33 forest tenure regimes in 15 countries. Rights and Resources Initiative, Washington, DC
- Amaral P, Amaral Neto M (2005) Community forest management: processes and lessons learned in the Brazilian Amazon and in Latin America. IBAMA, Brasília
- ANSAB (2009) Challenges and opportunities for Nepal's small and medium forest enterprises (SMFEs). ANSAB, Kathmandu
- Bonitatibus E, Cook J (1995) The group enterprise resource book. FAO, Rome. [http://www.ruralfinance.org/fileadmin/templates/rflc/documents/1128084661360\\_The\\_group\\_enterprise\\_resource\\_book.pdf](http://www.ruralfinance.org/fileadmin/templates/rflc/documents/1128084661360_The_group_enterprise_resource_book.pdf). Accessed 24 Nov 2011
- Carter J, Felber G, Schmidt K (2007) Local forest-based enterprises: supporting the livelihoods of the poor? *Inforesources Focus* No 2/07. Inforesources, Zollikofen
- De Marsh P (2011) Social development and indigenous and other local and forest dependent communities, and forest land tenure. Paper submitted to the United Nations Forum on Forests Ninth session, New York, 24 January–4 February 2011. International Family Forestry Alliance, Canada
- De Marsh P, Macqueen D (2011) Recommendations for a support strategy for small and medium scale, formal and non-formal forest enterprises: part of the Forest Connect alliance work to support small forest enterprises in Ethiopia. IIED, Edinburgh
- Dista N, Araújo B, Nhantumbo I, Macqueen D (2008) Avaliação empresarial de pequenas empresas florestais de base comunitária em Manica e Sofala. Centro Terra Viva, Maputo
- Donovan J, Stoian D, Grouwels S, Macqueen D, Van Leeuwen A, Boetekees G, Nichol森 K (2006) Towards an enabling environment for small and medium forest enterprise development. CATIE, Turrialba
- Figueiredo L, Porro N, Pereira L (2006) Associations in emergent communities at the Amazon forest frontier, Mato Grosso. Instituto de Pesquisa Ambiental da Amazônia (IPAM) and the International Institute for Environment and Development (IIED), London
- Gebremariam A, Bekele M, Ridgewell A (2009) Small and medium forest enterprises in Ethiopia. IIED Small and Medium Forestry Enterprise Series No. 26. IIED, Edinburgh
- Gomes A, Nouer M, Voivodic M (2008) Lessons from trade in community forest products—Brazil. In: Macqueen D, Dufey A, Gomes A, Nouer M, Suárez L, Subendranathan V, Trujillo Z, Vermeulen S, Voivodic M, Wilson E (eds) Distinguishing community forest products in the market: industrial demand for a mechanism that brings together forest certification and fair trade. IIED Small and Medium Forestry Enterprise Series No. 22. IIED, Edinburgh, pp 33–44
- Hansen C, Treue T (2009) Sharing of financial benefits from timber trees in Ghana: issues of equity and economic incentives with emphasis on the Off-Reserve situation. In: strengthening off-reserve timber resource management in Ghana, Proceedings 7. Tropenbos International Ghana, Accra, Ghana
- Hyde W, Wei J, Xu J (2008) Economic growth and the natural environment: the example of China and its forests since 1978. Environment for Development Discussion Paper Series April 2008. Environment for development programme, Peking University, China
- IIA (2009) Desafíos y oportunidades par alas micro, pequeñas y medianas empresas forestales (MIPYMES forestales) de Guatemala, Instituto de Incidencia Ambiental and FAO, Rome
- IIED (2011) Forest Connect—Reducing poverty by connecting small forest enterprises. <http://forestconnect.ning.com>. Accessed 24 Nov 2011
- Johnstone R, Cau B, Norfolk S (2004) Forestry legislation in Mozambique: compliance and the impact on forest communities. Terra Firma, Maputo

- Kaboré C, Yaméogo U, Bila N, Kamara Y (2008) Défis et opportunités pour les petites et moyennes entreprises (PME) au Burkina Faso. FAO, Rome
- Kambewa P, Utila H (2008) Malawi's green gold—challenges and opportunities for small and medium forest enterprises in reducing poverty. IIED small and medium forest enterprise series No. 24. Chancellor College and IIED, London
- Kelleher S (2011) The value of investing in locally controlled forestry. Markets and Incentives for Livelihoods Series No. 4. IUCN, Gland, Switzerland
- Liu D, Edmunds D (2003) Devolution as a means of expanding local forest management in South China: lessons from the last 20 years. In: Hyde W, Belcher B, Xu J (eds) China's reforms and its forestry sector: lessons for global forest policy. Resources for the Future, Washington, DC, pp 27–44
- Lobos FX, Giron JR (2011) Forest connect initiative in Guatemala. Powerpoint presentation to the International Forest Connect Workshop, 16–18 Feb 2010, Addis Ababa. Utz Che, Guatemala
- Luo X, Li R, Lin L, Gao X, Guiying P, Xia E, Jie L (2009) Challenges and opportunities for China's small and medium forest enterprises (SMFEs). FAO, Rome
- Macqueen D (2007a) Connecting small enterprises in ways that enhance the lives of forest-dependent people. *Unasylva* 58(228):26–30
- Macqueen D (2007b) Governance towards responsible forest business—guidance on different types of forest business and the ethics to which they gravitate. Small and medium forest enterprise series No. 20. IIED, London
- Macqueen D (2008) Forest Connect: reducing poverty and deforestation through support to CFEs. *Int For Rev* 10(4):670–675
- Macqueen D (2009) Rationale and tactics for supporting small and medium forest enterprises: the Forest Connect alliance. Paper presented at the World Forestry Congress, 19–23 Oct 2009 in Buenos Aires. IIED, London
- Macqueen D (2010) Developing a 'health check' methodology for new community based Forest Cooperatives in Ethiopia. IIED, Edinburgh
- Macqueen D (2011) Investing in Locally Controlled Forestry. Growing forest partnerships briefing January 2011. IIED, London
- Macqueen D, Rolington L (2011) Testing and enriching guidance modules for the 'facilitation of support for small and medium forest enterprises'. Report of an international workshop, 16–18 February 2010, Addis Ababa. IIED, London
- Macqueen D, Dufey A, Gomes A, Nouer M, Suárez L, Subendranathan V, Trujillo Z, Vermeulen S, Voivodic M, Wilson E (2008) Distinguishing community forest products in the market: industrial demand for a mechanism that brings together forest certification and fair trade. IIED Small and Medium Forestry Enterprise Series No. 22. IIED, Edinburgh
- Macqueen D, Baral S, Chakrabarti L, Dangal S, du Plessis P, Griffiths A, Grouwels S, Gyawali S, Heney J, Hewitt D, Kamara Y, Katwal P, Magotra R, Pandey S, Panta N, Subedi B, Vermeulen S (2009) Supporting small forest enterprises—a facilitators toolkit—DRAFT. Pocket guidance not rocket science! IIED, Edinburgh
- May P, Da Vinha V, Macqueen D (2003) Small and medium forest enterprise in Brazil. UFRJ, Rio, Brazil and IIED, London
- Molnar A, Liddle M, Bracer C, Khare A, White A, Bull J (2007) Community based forest enterprises. Their status and potential in tropical countries. International Tropical Timber Organisation Technical Series No. 28. ITTO, Yokohama, Japan
- Nhancale B, Mananze S, Dista N, Nhantumbo I, Macqueen D (2009) Small and medium forest enterprises in Mozambique. IIED Small and Medium Forest Enterprise Series No. 25. Centro Terra Viva and International Institute for Environment and Development, London
- Opoku K (2006) Forest governance in Ghana—an NGO perspective. A report produced by FERN for Forest Watch Ghana. Fern, Moreton-in-Marsh, UK
- Osei-Tutu P, Nketiah K, Kyereh B, Owusu-Ansah M, Faniyan J (2010a) Hidden forestry revealed: characteristics, constraints and opportunities for small and medium forest enterprises in Ghana. IIED, Small and Medium Forest Enterprise Series No. 27. IIED, London
- Osei-Tutu P, Nketiah K, Kyereh B, Owusu-Ansah M (2010b) Small and medium forest enterprises in Ghana: sourcebook on enterprise characteristics, activity centres, product markets, support institutions and service providers. Tropenbos International Ghana, Accra, Ghana
- Pandey G (2009) Community inclusion and expanding community space in forest management in Nepal: a community perspective. Paper presented at the Community Forestry International Workshop, 14–18 Sept 2009, Pokara, Nepal. FECOFUN, Kathmandu, Nepal

- Phimmavong B, Chanthavong V (2009) Challenges and opportunities for Lao DPR's small and medium forest enterprises (SMFEs). FAO, Rome
- Porter-Bolland L, Ellis E, Guariguata M, Ruiz-Mallén I, Negrete-Yankelevich S, Reyes-García V (2011) Community managed forests and forest protected areas: an assessment of their conservation effectiveness across the tropics. For Ecol Manage. doi:[10.1016/j.foreco.2011.05.034](https://doi.org/10.1016/j.foreco.2011.05.034)
- RRI (2009) Tropical forest tenure assessment: trends, challenges and opportunities. Rights and Resources Initiative, Washington
- RRI (2011) Pushback—local power, global realignment. Rights and Resources Initiative, Washington, DC
- Stoian D, Rodas A (2006) CFE development in Guatemala: a Case Study of Cooperativa Carmelita R.L. Catie, Turrialba, Costa Rica
- Stoian D, Donovan J, Poole N (2009) Unlocking the development potential of CFEs: findings from a comparative study in Asia, Africa, Latin America and the United States. Paper presented at the XIII World Forestry Congress held in Buenos Aires on 18–23 Oct 2009
- Subedi B (2011) Supporting small forest enterprises in Nepal. Powerpoint presentation to the International Forest Connect Workshop, 16–18 Feb 2010, Addis Ababa. ANSAB, Kathmandu, Nepal
- Sun C, Chen X (2003) Small and medium forest enterprise—China. IIED small and medium forest enterprise series No. 4. IIED, London
- Sunderlin W (2006) Poverty alleviation through community forestry in Cambodia, Laos, and Vietnam: an assessment of the potential. For Policy Econ 8(4):386–396
- Sunderlin W, Hatcher J, Liddle M (2008) From exclusion to ownership? Challenges and opportunities in advancing forest tenure reforms. Rights and Resources Initiative, Washington, DC
- Thomas R, Macqueen D, Hawker Y, DeMendonca T (2003) Small and medium forest enterprise—Guyana. Guyana Forestry Commission and IIED, London
- Weyerhaeuser H, Wen S, Kahl F (2006) Emerging forest association in Yunnan, China—Implications for livelihoods and sustainability. World Agroforestry Center, ICRAF-China and the International Institute for Environment and Development (IIED), London
- White A, Martin A (2002) Who owns the world's forests? Forest Trends, Washington, DC
- White A, Khare A, Molnar A (2007) Transitions in forest tenure and governance: drivers, projected patterns and implications. Rights and Resources Initiative, Washington, DC
- WRM (2006) Laos: FSC certified timber is illegal. World Rainforest Movement, Montevideo